

DENVER PC BOARDWATCH

TELECOMPUTING AND TELECOMMUNICATIONS NEWSLETTER

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TELE-BITS

ONLINE ACCESS MAGAZINE

Keeping apprised of developments in the land of fee database services can be as difficult as tracking local BBS. According to Cuadra Associates, publisher of an on-line industry directory, some **3,369** databases are currently available from **1,568** producers via **44** gateway services such as BRS After Dark and Dialog. **ONLINE ACCESS**, a bi-monthly magazine published in Chicago, offers many such tidbits of news. Articles tend toward "case histories" showing how business users save or make megabucks using a particular database service (usually the one advertising on the facing page). Despite the unabashed meld of advertising and editorial content, we found **ONLINE ACCESS** interesting nonetheless. A nice Online Access Guide in the last issue listed particulars of most of the major gateways such as Dow Jones, Questel, Dialog, etc. Annual subscription rate is \$24.95 for six bimonthly issues (90 pages September/October issue). Interestingly, the magazine also supports its own BBS at **(312)922-9231**. **ONLINE ACCESS**, 53 W. Jackson Blvd., Chicago, IL 60604; **(312)922-9292**.

REMOTE TONE-TALKER

BCB Electronic Sales is offering a plug-in circuit card for the IBM PC that allows you to run any application program on your computer from a remote telephone. Not new? Consider that you do not need either a modem or computer at the remote end. The board allows you to use the touch-tone keypad on the telephone to communicate with your computer. The package includes software to convert dual-tone multi-frequency (DTMF) tones to commands just as if they were entered via keyboard. Text-to-speech voice synthesis allows the computer to respond with prompts and results aurally. The company claims it will work with virtually any commercial program and also features voice-mail capabilities. While probably useful for remote data entry, sales orders, and some specialized control functions, we suspect graphics resolution gets short shrift. World's tiniest BBS? Priced at **\$995**. BCB Electronics, 2901 W. Bush Blvd., #920, Tampa, FL 33618; **(813)931-3582**.

NEWSNET

Newsnet is a database service sporting the full text of over **300** newsletters and specialty publications covering **34** individual industries. The service requires a

monthly fee of **\$15** plus **\$36** per hour at 1200 bps 8 PM to 8 AM. The service allows you to perform keyword searches of back issues of a particular newsletter and they provide a "clipping service" to perform automatic searches to alert you to events of particular personal interest. You can also order subscriptions to the print versions of any of the newsletters online. No....they don't carry Denver PC Boardwatch. **NewsNet Inc.**, 945 Haverford Rd., Bryn Mawr, PA 19010; **(800)345-1301**.

TEXT SCANNING SERVICE

Scantext Document Scanning Service offers a service to convert paper typeset or typewritten documents in virtually any typeface or font from 6 to 24-point size to diskette or 9-track magnetic tape. They accept books, manuals, columnar data and guarantee all work. They can format the output for most word processing or database programs (over 1000 formats) including virtually all software for Macintosh or IBM compatibles. The basic charge is **\$1.50** per Kbyte with a **\$25** minimum. They can also download the resulting files via modem. The service uses a Kurzweil 4000 scanner to perform this magic. They also provide disk format conversion services. Talk to Marv Groberman at **(206)451-3350**. Scantext, 1525 132nd Ave. N.E., Bellevue, WA 98005

CHECKFREE

There have been a few experiments with electronic banking over the last few years. Most allowed you to check account balance and make payments to a few preestablished accounts. Now **CHECKFREE** is experimenting with a similar, though enhanced, service. Their new **CHECKFREE PERSONAL BANKER** interfaces with the Federal Reserve banking system to allow a personal computer user to pay bills, transfer funds, and keep track of accounts automatically from their PC. There are no communication fees but the service does involve a **\$9** monthly service charge. **Checkfree Systems, Inc.**, PO Box 897, Columbus, OH 43216; **(614)890-8110**.

TYMNET OUTDIAL SERVICE

McDonnell Douglas Tymnet is introducing a long distance data discount service similar in some respects to Telenet's **PC PURSUIT** program. The new service is titled **OUTDIAL**. For **\$50** monthly plus **\$2.00** hourly connect charge (off peak hours - 7 PM to 6 AM) and a most mysterious **0.0065** cent per kilo-character trans-

fer charge (less than a penny for a hundred kilobyte file), users can connect to 15 cities by the first quarter 1988 - including Denver. The service operates somewhat like **PC PURSUIT** in that users dial a local **TYMNET** node, logon to **TYMNET**, and select a **TYMNET** modem (port) in another city. The user then uses the remote modem as their own and dials **OUT** from **TYMNET** to a local BBS in the remote city. The result? A local call on this end and a local call on the remote end - total long distance charges of \$2 per hour off peak. Peak hours involve a \$4.45 per hour connect charge and 6 cents per kilo character transfer fee.

Although the service appears expensive for off-peak hours when compared with **TELENET's PC PURSUIT** service (\$25 monthly - no connect charges), **TYMNET's \$4.45** hourly and 6 cents a kilo-character peak-period charges may appear enormously attractive to daytime users. Of course, pricing of the service may be affected by the outcome of the current battle over the FCC decision to lift access fee exemptions currently enjoyed by "enhanced service providers." **Tymnet**, 2560 North First St., PO Box 49019, San Jose, CA 95161; (800)872-7654.

NUMBERS

The first disc drive announced by IBM Corporation was the **350 MOD1** released in 1956. The unit sported 50 discs, each 24 inches in diameter, mounted on a single spindle. It stored up to five megabytes of data.

Word Perfect sales to date: **800,000**. Registered users of **ProComm** communications software: **30,000**. And, the Ingram Journal of Buffalo New York notes that Americans purchased **450,000** plastic pink flamingoes in 1985. Statistics never lie.....

NATIONAL E-MAIL REGISTRY

In our September issue we noted the **National E-Mail Registry** was collecting the name, address, telephone, and E-Mail address of thousands of users via a toll free service at (800)622-0505. Simply dial up, enter your data to register, and hangup. We found out this month that they have put their **National E-Mail White Pages** on-line directory into service at (203)245-7720. Set communication parameters for 7 data bits, Even parity, and 1 stop bit (7E1). The service allows you to look up the E-Mail address of anyone who took the time to register. Costs involve the long-distance charge to Madison, Connecticut and 20 cents per search. You are charged only if the search is successful. However, the company requires you to purchase a minimum 50 searches (\$10) in advance via credit card or pay \$95 annually for unlimited searches. While this is a fascinating concept and truly a needed service, it's not likely we'll need to perform 50 searches soon. This service would work very well with a 900 number where you could dial up, make a single search, and hangup with a simple 50 cent charge to your telephone bill. If they get their pricing/billing methods worked out, we think they'll find a

market. **National E-Mail Registry**, 3 Neshaminy Interplex, Trevose, PA 19047; MCI Mail **RHERFF** or CompuServe **72147,126**.

LOCAL ACCESS 303

USS LIBERTY BBS

We've seen some strange uses for electronic bulletin board systems but this one is definitely an eye-catcher. Phil Tourney of Fort Collins operates the **USS LIBERTY BBS** at (303)224-4655. The board is dedicated to "getting the word out" about the fate of the **USS Liberty**, a ship of the United States Navy. It seems that nearly 20 years ago, Israel fired a missile at **USS Liberty** during the 7-day war damaging the ship and killing 34 US sailors. Apparently, a number of the crew felt the firing was intentional. Since Israel was an ally, apparently the entire matter was shushed up by our government. Now, a number of surviving crewmembers are communicating via a small network of electronic bulletin boards named after the ship **USS Liberty**. Numerous informational files are available for download as well as instructions for contacting your congressman concerning this burning issue. - Interesting board.

RANGELY RADSCAN

John Henderson operates a rather unique board up in Rangely Colorado on a **Digital Equipment PDP-11/45** minicomputer using custom BBS software written by enthusiasts at Northwest University. The system is titled **RADSCAN** and is a multiline operation at (303)675-3225 and (303)675-3326. After connect, you will be prompted for a password - enter **RADSCAN** and register as **NEW**. The board operates a lot like Unix-based systems we've seen and offers, of all things, on-line games such as Adventure, Star Trek, and Dungeons. The system offers a chat mode and features an extensive two-screen main menu. If you are looking for something a bit different, we would have to say that this is.

PROFESSIONAL SYSTEM.

Bob Voorhees has recovered very nicely from his equipment problems earlier in the year with **PROFESSIONAL SYSTEM** at (303)740-2223. The board is run as an extension of the Electronic Data Processing Auditors Association. Members of this group are involved in setting up and monitoring computer data security systems and procedures. Hackers, pirates, and system crashers will probably not feel the warm glow of acceptance from this group. The board does provide message areas for professional writers, accountants, and lawyers. A recent addition is a comprehensive list of computer clubs, user groups, and professional associations operating in the Denver area

- an innovative and welcome service to the community. The system runs on an IBM compatible unit with **T)he B)read B)oard S)ystem (TBBS)** bulletin board software.

A case can be made that the relative quality and usefulness of a bulletin board is more a function of the type of users it attracts than the number of public domain programs available for download or equipment purchased. If so, we think **PROFESSIONAL SYSTEM** can look forward to a very pleasant future. We find the message traffic on the board notably more interesting, lucid, and civil than that normally encountered on local boards - a genuine pleasure to read. Mr. Voorhees has apparently succeeded in attracting a professional clientele with more on their mind than the usual petty squabbles and technobabble. The board also attracts a fairly substantial out-of-town element contributing some varied perspectives. Refreshingly genteel. Highly recommended.

SYSDOP STARTER PACKAGE

Have you ever considered starting your own electronic bulletin board system? Increasingly, users are joining the party with their own board. One of the most popular BBS software packages is titled **OPUS** (nothing to do with Bloom County we understand). Opus is flexible, provides very attractive screens, and best of all, it's free. It features full screen message editor, **ANSI** graphics, **XMODEM** message uploads, and a stunning variety of file transfer protocols including **ZModem** and **SEAllink**. The only drawback is that the package has become somewhat complex to set up with the dozens of add-on files and available utilities. Two local sysops with some extensive Opus experience have put their heads together to develop an **OPUS** starter package. The package includes everything required to get an **OPUS** system up and running as well as some documentation with hints, tips, and hazards of startup with **OPUS**. The authors claim users can get a bare-bones system up and on-line in as little as 15 minutes. **Alan Applegate** occasionally writes articles for **Denver PC Boardwatch**, edits the local **FidoNet 104 Electronic Newsletter**, and sysops **THE SHORT LINE BBS 104/36** at (303)969-9510. Despite habitually signing off as **SHORT LINE - TOOT - TOOT**, Alan insists that the title and signoff are intended to indicate a railroad motif rather than the cocaine traffic distribution point recently rumored. His partner-in-crime and co-conspirator on the **OPUS** startup package is **Lee Lason**, an Estes Park computer consultant and sysop of **ON-LINE CONSULTING BBS 104/45** at (303)449-5251. Lee's board also runs on **OPUS**, and features a directory of computer consultants. It also serves as official support board for the newly formed **Colorado Association of Computer Consultants**. He brings in the **FidoNet Consultants Echomail** conference featuring shoptalk from around the country. Additionally, some useful desktop publish-

ing files/clipart that either Macintosh or PC publishing aficionados would likely find interesting can be found on this BBS. If you are considering an IBM based BBS, a call to either of these boards might be a good place to start.

FIDO NEWS

The local Fidonet continues to grow at a dramatic pace with new boards added and existing boards joining the net in droves. And, a new Echomail conference has come to life locally with **DENVER Echo**. The new **DENVER** echo features discussions of Denver area restaurants and entertainment with such debates as who makes the best onion rings and the relative merits of Red Robin Restaurant versus Chili's - entertainment and dining discussions. Claude Warren of the UCHSC Department of Psychiatry brings us the **PUBLIC PSYCHIATRY BULLETIN BOARD (P2B2)** Fidonet **104/51** at (303)329-3337. The board runs limited hours from 6 PM to 8 AM and features some unusual Echomail conferences including one for Macintosh users and a host of message areas for mental health, treatment of alcoholism and drug abuse, and other human science issues. Zhahai Stuart brings us the **ADELANTE BBS** Fidonet **104/93** running 24 hours at (303)443-8292. The board is IBM based using Opus 103 software and features Latin/Central American news and issues. Gerard Westerberg's **MICROLINK B Fido 104/108** has long provided one of the better local software download libraries at (303)972-4181. As of November 1 it also features a new number at (303)972-9600. Further, it now has a sister Fido board with John Anderson's **MICROLINK C 104/53** at (303)455-4793 running TBBS software. Ed Fenner runs a BBS for Macintosh users titled **BOULDER MAC MANIACS** at (303)530-9544. Ed has decided to bring BMM into the Fidonet as **104/49** and carry the **MAC Echo**. And Kent Leonard has changed the name of his **BOULDER FIDO 104/77** to **SHEPHERDS BUSH** and upgraded modems with a US Robotics HST 9600. The board can be reached at (303)497-6968. Alan Applegate is now serving as Editor-in-Chief of a local **FidoNet 104 Electronic Newsletter**. Look through your back issues of **Denver PC Boardwatch** to see where Alan did some of his early newslettering. Local retailer Apparat Computer has joined the ranks of the bankrupt. Unfortunately, they took John Bilbro's **APPARAT BBS 104/41** down with them. We suspect John won't be off the air for long. Finally, Neil Beatty brings us the **ARKHAM PUBLIC LIBRARY 104/48** at (303)444-7686 from 6 PM to 8 AM. The board features some respectable download software (hence the name) and several on-line games including the immensely popular **TRADEWARS**.

SHAREWARE NOTES

SNIPPER.COM

PC Magazine has done it again with another dyn-o-mite utility program for IBM compatible computers. This one is titled **SNIPPER** and you've seen it before - just never this good. The program allows you to "cut out" or capture an area of your screen and save it to disk, print it out, or copy it into another word processor or other application. Sidekick had something similar. PC-OUTLINE did as well. But **SNIPPER** is smaller, faster, and easier to use. **SNIPPER** comes in the file **SNIPPER.ARC**. Use PKXARC or equivalent archive utility to unpack it. The **SNIPPER.COM** file is only 1648 bytes and operates as a memory resident pop-up utility. You don't need the included .DOC file - the program is ridiculously easy to use.

To load **SNIPPER** type **SNIPPER** and press **ENTER**. The program loads itself into memory and then returns you to the DOS prompt. Thereafter, start the program by pressing **ALT-W**. A cursor appears on screen. Position the cursor to the upper left corner of the area of screen you wish to "cut out" and press **ENTER**. Now position the cursor to the lower right corner of the screen area and press **ENTER**. A tiny menu will appear on screen with **F**ile, **P**rinter, **S**ave, and **G**et options. Press the first letter of the selected menu option and it's done. Our only criticism of this program is that when capturing some reverse video BBS logon screens, the cursor (being reverse video) would be invisible and so of course difficult to position accurately. Like all of PC Magazine's utilities, the file is available from the **PC Magazine Interactive Reader Service** bulletin board at (212)696-0360 in New York City or (415)598-9100 on the west coast. **SNIPPER.ARC** is available for download locally from **THIS END UP FIDO 104/30** at (303)430-1585.

HARDWARE INSPECTION

CTS DATACOMM 2424ADH MODEM

In our September issue we described a series of 2400 bit-per-second (bps) modems available for under \$200 and detailed the advantages and cost savings of upgrading your 300 or 1200 bps modem to a 2400 bps model. Currently, we feel that 2400 bps is the fastest modem speed available to the majority of hobbyists. And, more BBS are supporting the 2400 bps speed each week. Faster modems are expensive (starting at about \$750) and there are no "safely" established standards at higher speeds. A Telebit 9600 bps modem must be connected to another Telebit 9600 to operate at the 9600 bps rate. Similarly, a Microcom, a Hayes V-Series, or a US Robotics HST 9600, are all capable of 9600 bps operation only when connected to an identical model at the other end. If you connect

your \$1000 9600 bps modem to another modem of different manufacture, it simply "falls back" to - you guessed it - 2400 bps. The result? For most of us, we would be using our \$1000, 9600 bps modems to act as \$200, 2400 bps units 98% of the time.

We ordered a \$199 2400 bps unit from Stan Snyder at **ON-LINE STORE** of Ventura California by dialing up his on-line BBS at (805)656-0379 and charging the purchase to a credit card. The model we selected was a **CTS DATACOMM 2424ADH** model manufactured by **CTS Fabri-Tek, Inc.** of Eden Prairie, Minnesota. This unit is also marketed under the Basic Time and Qubie brand names among others. We ordered the modem on a Thursday, it was shipped the following Monday and we received the unit on the Saturday morning following for a total shipping delay of 9 days - not bad.

The modem itself arrived well packaged for shipment. After unpacking the unit, initial inspection revealed a very cheap looking white plastic case. There was a gap of 1/16 inch between the top and bottom halves of the case all around - probably to solve a heat problem. Status lights were hidden behind a plastic mask with the placarding inked on. The overall initial impression was very poor.

With our initial disappointment in the appearance of the modem, we were totally unprepared for what happened next. We connected the RS-232 cable from our computers serial port and hooked up a telephone line into the RJ11 socket in the side of the modem marked **LINE** and a telephone into the socket marked **PHONE**. We connected the AC adapter and pressed the pushbutton power switch on the back panel of the unit. We booted up the computer, started up our communication program, and started dialing BBS. Without setting any DIP switches, altering any communication parameters in our software, or sending any special setup codes to the modem, **IT WORKED!** It just happened that the factory settings for this modem exactly matched the software configuration we used. The documentation even listed parameters for various software packages including several shareware products.

Note that there are no DIP switches for setting parameters if you wanted to. All changes in modem operation must be entered via commands to the modem that alter internal registers. Fortunately, these setup commands can be stored to non-volatile memory and so once entered, need not be repeated each time the modem is used. Although we prefer to have DIP switches for convenience, we simply cannot fault setup of this modem. We've installed neckties that required more thought and planning than the **CTS DATACOMM 2424ADH**.

Another pleasant surprise was that this modem provides both **Asynchronous** and **Synchronous** operating modes. This is an unusual and usually expensive feature. Connecting to BBS systems and on-

line services almost always requires **Asynchronous** operation. This means that the transmission of data is not synchronized by a transmitted clock or timing signal but rather by start and stop bits accompanying each byte of data. **Synchronous** operation uses a separate clock or timing signal between modems to "synchronize" data transmission. It is a wholly unnecessary feature for casual BBS exploring or prowling around Dow Jones News Retrieval. However, if you would like to work from home by hooking up to the company main-frame via your modem, you may run into a requirement for a synchronous modem. Many main-frame units communicate exclusively via synchronous mode. The **CTS DATACOMM 2424ADH** supports three different synchronous modes using either an internal clock or a remote. Note that we did **NOT** test synchronous operation.

The **CTS** has several models that are not too well differentiated but do make a big difference in operation. The key is the last three letters in the model number. **ADH** model at \$199 supports the Hayes command set - a must if your modem is to work with any of today's communication software. The **AD** model does not. The **AMH** model adds support for the **Microcom Networking Protocol (MNP)** to class 4. This protocol allows faster and more reliable file transfers. It's also more expensive with the **CTS DATACOMM 2424 AMH** offered at \$299.

Although the manual was totally unnecessary for installation and operation, we did take a look at it anyway. Another surprise. We're sure this book was written in English by someone who spoke the language as their native tongue - an unusual and welcome approach to technical documentation. Clearly written and very well organized, the book also provides as good a description of the Hayes AT command set as is available. The book is roughly 120 pocket-size pages in the usual spiral binding with handy command summary cards up front, a good table of contents, index, and an excellent all-purpose glossary of communication terms in the back. The book is full of tables and charts for the peculiar commands required to set the internal registers, ASCII codes, AT commands, RS-232 cable pinouts, etc. Chapter 7 on Communication described various use scenarios such as originating a call automatically, redialing a busy line, security call-back systems, etc. This section would be exceptionally good for first-time modem users. Overall the manual was a huge step above what is customary for low priced modems or peripherals of any type and it bordered on becoming an all-purpose communications handbook.

The **CTS** provides eight status lights on the front panel: **PW** - power on; **OH** - off hook; **TR** - terminal ready; **RI** - incoming ring indicator; **HS** - high speed (2400 bps) indicator; **CD** - carrier detect; **MR** - modem ready; and **SQ** - signal quality poor/adaptive equalization loss indicator. We consider this arrangement

slightly non-standard from most modems. We missed receive data and transmit data lights that allow confirmation that something is actually going on during a file transfer. All status lights were a dim, dull red barely visible in normal room lighting. We consider status lights one of the main advantages of paying the extra money for an external model. These lights aren't impressive.

In operation, the modem performed well at all speeds on a variety of lines. We encountered some noise on several local telephone exchanges as usual. File transfers during lightning storms are not recommended, but the **CTS** didn't seem too bothered by it all during several such sessions we intentionally endured. Naturally, reading messages at 2400 bps was a pleasure and on those boards with a top speed of 1200 bps the **CTS** gracefully fell back to 1200 bps operation without complaint. At 2400 bps, we routinely attained file transfer speeds of 225-230 characters per second (cps) using a SEALink protocol. The modem features adaptive equalization, autodial and autoanswer, and analog and digital loopback self-test. Our main comment concerning operation was that it was uneventful - probably the highest praise possible for a communications device that is ideally transparent to the user when operating.

Considering the low price, ease of installation, flawless operation, excellent documentation, 2-year warranty, and provided features, we are quite willing to overlook the cheesy plastic case and non-standard status lights. Note that **CTS Fabri-Tek, Inc.**, is an American company with a telephone - at times a big advantage. This modem is painfully ugly but a pleasure to use - highly recommended. Normally priced at \$199, Mr. Snyder has agreed to a \$10 discount to \$189 for **Denver PC Boardwatch** readers. Sysops qualify for an additional discount to \$175. Shipping charges total \$8. **ON-LINE STORE** 1996 Eastman Ave. #114, Ventura, CA 93003 (805)656-0379 (data) or (805)656-3741 (voice). **CTS Fabri-Tek, Inc.**, 6900 Shady Oak Road, Eden Prairie, MN 55344; (612)941-9100.

LONG DISTANCE USA

DALLAS BBS LIST

We recently received a copy of a computer newspaper titled **Texas Computing**. Dennis Recla writes the Telecommunicate column for the paper and lists BBS for a number of Texas communities including some **200 electronic bulletin boards** operating in the Dallas area (accessible via PC Pursuit). Apparently Mr. Recla is working our side of the street as he verifies each number and notes that he located 30 new boards this month to replace 30 that had passed on. This percentage of turnover is similar to ours here in Denver. Mr. Recla also operates **THE LOST ISLAND BBS** at (214)681-4789 using Citadel BBS software. The

board serves as a message center for new/changed BBS announcements in the Dallas area.

BOSTON COMPUTER SOCIETY

The Boston Computer Society is certainly one of the oldest and largest computer users groups in the world. The club was founded in 1977 and currently sports 25,600 members. The BCS is a non-profit educational organization dedicated to furthering the general public's understanding of and knowledge about personal computers. The club sports a variety of subgroups specializing in almost any type of personal computer from the Sinclair ZX81 to the IBM. As a byproduct, a whole series of BBS have sprung up under club auspices to serve a variety of special interest groups. The table below provides a partial list of these boards. Membership to the Society is \$35 annually. Boston Computer Society, One Center Plaza, Boston, MA 02108; (617)367-8080 (voice).

PORTAL COMMUNICATIONS CO.

We note a recent trend toward low cost, flat fee commercial on-line services. A recent addition is the **Portal Service** in Cupertino California. Portal is available for a \$15 one-time signup fee and a flat \$10 per month with **NO CONNECT -TIME CHARGES**. However, connecting to their Cupertino telephone is your responsibility. The service is available via Telenet and PC Pursuit subscribers can access the service at up to 2400 bps without long distance charges by entering **CONNECT PORTAL, USER ID, PASSWORD** at the prompt. There were some early problems with this method but John Little, of Portal Communications claims the bugs are worked out now. PC Pursuit users can also access the service (1200 bps) by selecting dialer 408. The Portal service provides electronic mail, conferencing, a matchmaker service, a 500 MB software library, on-line computer publications, and

access to the **USENET** electronic mail service spanning 30 countries and four continents. Special interest group conferences cover subjects as diverse as medicine, astronomy, soap operas, skydiving, politics, and woodworking. A selective text retrieval service allows you to have the system automatically assemble a custom magazine for you by culling messages etc for topics of particular interest to you from thousands available. **Portal Communications Co.**, 19720 Auburn Drive, Cupertino, CA 95014; (408)725-0561 (300/1200 bps); (408)725-0569 (2400 bps);(408)973-9111 (voice).

TRINTEX UPDATE

In our June issue, we mentioned a service titled **TRINTEX PRODIGY** to be offered jointly by IBM and SEARS as a competitor to **COMPUSERVE** and **THE SOURCE**. The service would differ in that billing would be at a modest flat monthly rate rather than based on connect time. **TRINTEX** demonstrated their **PRODIGY** product in New Orleans on October 24 in data-cache form rather than as a live on-line service. They plan a 1988 introduction but are staying very close-mouthed concerning the details of the introduction. This service could bust the home on-line services market wide open if it's not aborted by the final FCC decision concerning access charge exemptions for enhanced service providers. **Brian Ek** manages public relations for the product. (914)993-8711.

STARTEXT SERVICE

The Fort Worth Star-Telegram Newspaper operates an on-line service titled **STARTEXT** featuring unlimited access for a flat rate of \$9.95 per month plus tax - no signup fee and no connect-time charges. They bill quarterly for a nice round total of \$32.01. The service is accessible via PC Pursuit at a Dallas exchange number (214)638-4150. or in Fort Worth at (817)877-1041.

The service has been in operation since May of 1982 and closely parallels the information provided by the local newspaper with local stories, ads, and business information. They currently sport 2800 subscribers and enjoy an annual growth rate of 20-30%. The service runs on a pair of **DEC VAX 750** computers with 300/1200 bps access. Notably, **STARTEXT** provides **Associated Press** wire service news and closing stock quotations as well as the usual E-Mail and a wealth of conference services - all included in the basic fee. A custom text search function will assemble stories on your favorite subjects from available news stories.

Grolllers On-line Encyclopedia and the **Starquotes** 15-minute delayed stock quotation service are available at additional cost. Starquotes requires a \$10 signup and \$10.67 for a block of 100 quotes. The 15-minute delayed quote service wouldn't make much sense for PC Pursuit subscribers accessing the ser-

BOSTON COMPUTER SOCIETY BBS	
SPECIAL INTEREST GROUP TELEPHONE	
Apple	(617)275-9422
Atari	(617)396-4607
BCS Area of CitiNet	(617)439-5699
BCS Main Office	(617)227-7986
Commodore	(617)862-5779
IBM	(617)332-5584
Kaypro	(617)776-6029
Macintosh	(617)876-4835
Mac Downloads	(617)497-5035
Osborne	(617)288-4667
Science/Engineering	(617)525-2145
Sinclair/Timex	(617)648-7651
Tandy	(617)686-5735
Telecommunications	(617)786-9788
Texas Instruments	(617)335-8475

vice after market close anyway since closing quotations are included in the basic service. Signup by calling Gerry Barker, Startext Manager, at (817)390-7892 or -7905 or writing Fort Worth Star Telegram, Startext Online Service, PO Box 1870, Fort Worth, TX 76101. You can get a FREE demo ID and password good for 5 free on-line sessions - mention Denver PC Boardwatch.

TELENET NUMBERS

PC Pursuit users as well as those accessing Dow Jones News and a host of other data services will be happy to learn of a toll-free Telenet service listing every Telenet telephone node in the world. Telenet acts as an electronic highway matching up data services with users around the country. They also connect 25 cities via **PC PURSUIT**, a popular service allowing unlimited long distance data communications at night for a flat \$25 monthly fee. To list all the Telenet numbers, set communication parameters to 7 data bits, Even parity, and 1 stop bit (7E1) and dial (800)424-9494. After connect, at the @ prompt type MAIL and press ENTER. At the USERNAME: prompt enter PHONES and at the PASSWORD: prompt enter PHONES again. Easy to use menus will take you from there to list Telenet numbers by state, area code, or printout the entire list. You can get more information on Telenet and the **PC PURSUIT** service by dialing (800)TELENET.

EDITOR'S NOTES

With the arrival of autumn there seems to be an increased interest in on-line communications and electronic bulletin board systems. More hobbyists are putting up boards each week as evidenced by our growing local list. For those interested in starting an OPUS based BBS, a pair of local sysops have prepared a startup package you might want to look at. We like it. See page 3 for details.

Terus Corporation's Fidonet 104/43 BBS at (303)469-7161 established a **DENVER PC BOARDWATCH** message area for users to post notices concerning the birth or demise of bulletin board systems. Apparently a couple of local boards have requested it after the fashion of Fidonet echomail conferences. Perhaps this can serve as a useful center for news of Colorado BBS comings and goings - filling the role **UNKNOWN BBS** filled until a few months ago. A national echomail conference along these lines might be useful, if a bit ambitious, given that the Denver exchange is PC Pursuitable. Since most echomail conferences blast individuals announcing BBS rather roundly, it could serve as an echo specifically for those type of announcements as well. We will monitor this message area fairly closely.

Anyone wishing to contact **Denver PC Boardwatch** electronically may do so via this channel.

We note a growing trend toward flat-rate commercial services. **STARTEXT** of Fort Worth, **PORTAL** of Cupertino, and **TRINTEX** of IBM/SEARS fame are all featured in this issue. Each offers Compuserve-like features for a modest monthly fee (usually \$10) and no connect-time charges.

In response to some unexpected, though welcome, subscriptions received from other areas around country, we are taking some tentative steps toward national distribution. We do carry some services of national interest in our **LONG DISTANCE** and **TELEBITS** sections.

A recent article in the Sunday, October 18, **Denver Post Contemporary Magazine** has given us a modest boost and the newsletter continues to grow. Apparently we've become successful enough now to draw some criticism and controversy. It seems we failed to note **GREETER HUB** of Colorado Springs upgrade from 1200 to 2400 bps service several months ago. This caused a firestorm of criticism from that area. We find expectations of that kind of accuracy from our list enormously flattering - if slightly unrealistic. Our bemused apologies **GREETER HUB**. We also omitted a couple of boards from the October list that now appear to be up. For this we do not apologize. We do not claim to be either all inclusive or 100% accurate - but we haven't found any list in the area comparable in either scope or accuracy. If we cannot obtain a connect, for whatever reason, the board comes off the list for the month. In this we purposely err on the side of caution to keep to a minimum the number of boards on our list no longer in service. We normally will attempt connection 3 times per month. If you don't answer the phone - with a tone - you're **UNKNOWN** - period. Seven VAX 1170s running on 300 lines for the past 12 years, offering free beer on-line, with access to both the National Archives and stock quotes two hours in advance of market isn't news here unless we can raise a tone and connect. Ask the Boston Computer Society - we marked off 4 and updated the number on 1 from their list. Happy Telecomputing *< ; -)

Jack Rickard

THE LIST

In this issue we present **233** electronic bulletin boards/on-line services for your consideration. A total of **19** entries were dropped from October's **223** listed services and **29** new entries were added for a net gain of **10**. This corresponds to a **8.5%** turnover rate coupled with a **4.5%** growth. As always, each telephone number on this list was verified by actual telephone contact within the thirty days prior to publication - in this case the month of October. Enjoy!

DENVER PC BOARDWATCH

CONFIRMED LIST OF ELECTRONIC BULLETIN BOARDS AND ON-LINE SERVICES - NOVEMBER 1987

TITLE	TELEPHONE	BPS	HOURS	DESCRIPTION	TYPE
Aces High	329-6579	3/12	24	Programming/General Messages	Franklin
Adelante 104/93	443-8292	3/12/24	24	Central/Latin America Social Issues	IBM
Aerie, The 104/40	623-7865	3/12	24	Leisure - EchoMail - Discussions	Epson
Albuquerque Starport	494-7224	3/12	24	Commodore Network Systems International	C-64
AmNet On-line	1-223-1297	3/12	24	Animal Rights Issues	IBM
Apparat Inc.	790-7947	3/12/24	24	Englewood Computer Store Fido board	IBM
Apple Orchard North	1-578-0603	3	24	Upload/Download	Apple
Apple Pi A La Modem	427-7114	3/12	24	Apple User Group Messages/Downloads	Apple
APSNNet	693-6737	3/12/24	24	Aurora Public Schools Network	Apple
Arkham Public Library 104/48	444-7686	3/12/24	6P-8A	Tradewars - IBM Software Library	IBM
Aurora Multi-System	745-3414	3/12	24	Amiga/Atari/IBM	Amiga
Aurora Net	680-9292	3/12/24	24	Protree Prime/Elite Support Board	Apple
Back Door BBS, The	690-0194	3/12/24	24	Games	Apple
Barter Town	238-2021	3	24	Commodore Bored	C-64
Bill's Place	1-392-3417	3/12	24	Music/Video Reviews - Weather - Tandy	IBM
Bit Bucket, The	790-7024	3/12	24	Uses Wildcat BBS Software	IBM
Blue Bear Group	825-1324	3-96	24	National Electronic Mail System	Northstar
Blue Planet	979-7299	3	24	Space Wars Game	Tandy2000
Boat-Net II	1-879-3275	3/12/24	24	Version of GBBS Software for IBM	IBM
Bordello	423-0991	3/12	24	Commodore Bored	C-64
Boulder MAC Maniacs 104/49	530-9544	3/12	24	Apple Macintosh Messages and Files	MAC
Box's Cabin, The	424-9185	3/12/24	24	Apple / Technical Notes	Apple
Buck Board, The	425-9283	3/12	24	Veterans messages, TRS-80, Amiga	TRS
Bud's BBS	761-6807	3/12	24	Atari - 3.123 Megs - News items	Atari
C.A.C.H.E	745-4960	3/12/24	24	CO Apple & Compatible Home Enthusiasts	Apple
C.A.R.L Boulder/Broomfield	444-2057	3/12	24	Library Research	Tandem
C.A.R.L Colorado Springs	1-632-2194	3/12	24	Penrose Library	??
C.A.R.L Denver	830-1165	3	24	Colorado Association Research Libraries	Mainframe
C.A.R.L Denver	830-0519	24	24	Colorado Association Research Libraries	Mainframe
C.A.R.L Denver	830-1547	3/12	24	Colorado Association Research Libraries	Mainframe
C.A.R.L Denver	830-1548	3/12	24	Colorado Association Research Libraries	Mainframe
C.A.R.L Denver	830-1546	3/12	24	Colorado Association Research Libraries	Mainframe
Cable Net Opus	987-9168	3/12	24	IBM Messages/Downloads	IBM
Career Connection/DRUG	671-0801	3 to 96	7P-7A	Job List/Resume/Denver Rainbow Users Grp	DEC100
Cat's Lair	1-382-8646	3/12	24	Commodore BBS with Feline Bent	C-64
Catspaw SNOBOL4/ICON 15/22	1-539-4830	3/12/24	24	SNOBOL/ICON Programming Languages	IBM
CBA Information System	329-0159	3/12	24	Continental Basketball Association	IBM
Chariot Communications	1-632-4111	3/12	24	Subscriber Only - Unix - NAPLPS Graphics	IBM
Club House, The	756-9134	3/12	24	RP Games - Golf Format - Messages	Apple
Club Micro Max 104/88	832-5850	3/12	24	*C*Language/Database/Communication Files	IBM
Coco County Airport	343-6707	3/12	24	TRS Color Computer Support	CoCo
Code 5150	696-6673	3/12/24	24	Lunatic Discussions / Crazy People	Apple
Collie, The	1-260-9724	3/12/24	24	General Software Downloads	IBM
Colorado Broadcasters 104/42	572-6256	3/12	24	Commercial Radio Frequency Lists	IBM
Colorado Commodore Club BBS	452-0544	3/12	24	Commodore Computer Info	C-64
Colorado FireNet Fido 128/16	1-591-7415	3/12/24	24	Colorado Springs Fire Safety	IBM
Colorado TravelBank	671-7669	3/12/24	24	Colorado Travel, Recreation, Ski Info	IBM
Colorado University	447-2540	3/12	24	University Mainframes (Require Access)	Mainframe
Comm-Net Information Service	366-7177	3/12	24	* C-64/C-128/Amiga Info-Dnlds-Messages *	C-64
Comm-Net Information Service	366-2341	3/12	24	* Excellent Info for Commodore Products *	C-64
Comm-Net Information Service	340-2473	3/12	24	* C-64/C-128/Amiga Info-Dnlds-Messages *	C-64
Comm-Net Information Service	366-3898	3/12	24	* Service Jokes/Weather/Sports/Database *	C-64
Comm-Post, The	534-4646	3/12/24	24	Astronomy, TI-PC, Tandy 1000/2000, Jokes	IBM
Commstar Enterprise	1-597-8670	3/12	24	Commodore 64 with Tesseract Drive	C-64
Communication Companion 128/12	1-685-4333	3/12	24	Manitou Springs - Gourmet Recipes	IBM
Comp-U-Rado Node 1	1-593-1072	3/12/24	24	Comp-U-Rado Consulting	IBM
Comp-U-Rado Node 2	1-591-9448	3/12/24	24	On-line Hardware Sales 85 MB	IBM
Computer Farm 128/20	1-632-0669	3/12/24	24	FCC Echo IBM Hardware/Software Sales	IBM
Computer Know How	279-0224	3/12	24	Hard Disk Installation / Tech Support	CP/M
Computer Repeats Inc.	939-8174	3/12	24	Used Atari Equipment Sales	Atari
Computerland of North Denver	420-0126	3/12	24	Computerland Support	IBM
Computers Unlimited	762-9122	3/12	24	Sanyo MBC-55X Support	IBM
Control Headquarters	1-472-0902	3/12	24	Maxwell Smart/Agent 99 - Games	??
Control Point 104/711	526-9642	3/12/24	24	*Excellent* PC Software Download Files	IBM
Control Systems	458-6248	3-96	24	IBM/Compatibles Subscription Board	IBM
Controller Board/TBBS Island	690-9423	3/12	24	Computer Supplies - Online Sales	TRS

DENVER PC BOARDWATCH

CONFIRMED LIST OF ELECTRONIC BULLETIN BOARDS AND ON-LINE SERVICES - NOVEMBER 1987

TITLE	TELEPHONE	BPS	HOURS	DESCRIPTION	TYPE
COSUG 128/13	1-531-9674	3/12/24	24	Colorado Springs PC Users Group	IBM
Council of Whitestone 104/46	699-0326	3/12	24	D&D - Jokes - Tradewars - Chess - QBBS	IBM
CP/M SIG INC 104/372	465-1313	3/12	24	Oldest User's Group in Area - CP/M - IBM	IBM
Crossroads	989-8397	3/12	24	Discussion	TRS ●
Crossroads	499-0457	3/12	24	Discussion	TRS ●
CS BBS Service 128/11	1-531-6668	3/12/24	24	Heath Zenith Echo Conference	IBM
Custom HUB	1-598-4500	3/12/24	24	Colorado Springs	IBM
Daily Planet	286-8701	3	24	Commodore BBS	C-128
Day's End 104/20	650-5636	3/12/24	24	Downloads - Messages - Astronomy	IBM
Death Star, The	781-6863	3/12	8P-6A	Fun Posting	C-64
DEKBBS	1-635-3732	3/12	24	CP/M Files - Computer Auction	??
Dementia	989-8470	3/12	24	American MENSA Denver Chapter	Apple
Den HUG	331-0982	3/12	24	Denver Heath/Zenith User Group	Heath
Denver Deaf-Net	989-9245	3/12	24	Hearing Impaired/Computing	Apple
Denver Metroplex 104/69	455-3283	3/12/24	24	Autocad/Computer/Sexual Boards	Kaypro
Denver Tech Center	799-4813	3 to 96	24	Megafiles of Downloads / On-line Chess	IBM
Dialamatch 118/The Brokerage	796-9721	3/12	24	Adult Matchmaking	Franklin
Dilligaf	1-593-2232	3/12	24	D)oes I)t L)ook L)ike I) G)ive A) F)...	??
Dinosaur Board	1-652-3595	3/12	24	Outdated Computer Support/Zork I On-Line	TRS ●
Discovery, The	388-5437	3/12	24	Music / General Messages	Apple
DJ	789-0500	3-96	24	Galactic Conquest Game On-line 40 MB	Apple
Dragon's Shadow	841-3721	3	24	Fantasy / Games - Unique Logon Screen	C-64
Eagle's Nest	933-0701	3/12	7P-10P	Minihost Board	IBM
Eagles Nest 128/18	1-598-8413	3/12/24	24	Eagleview Middle School	IBM
Education 2000 104/29	449-9807	3/12	24	Education Issues Kindergarten - 12th	IBM
Electronic Locksmith 128/22	1-392-2906	3/12	24	Rick's Locksmith Service - Security CO	IBM
Elkridge West	1-488-2671	3/12/24	24	TCOMM BBS with 144 MB of Files	IBM
Enchanted Castle	1-769-1880			INFO NEEDED	
Enterprise	320-6470	3/12	24	Commodore Board with 3.6 MB Software	C-64
Epoch 2000 128/21	1-531-6172	3/12/24	24	Astronomy Dedicated - Viewing Conditions	IBM
eSoft Support	699-8222	3/12	24	eSoft Inc. TBBS Software Support	IBM
ETA Denver 104/32	750-5042	3/12/24	24	ANSI, Messages, Weather Forecast, Dnlds	Tandy
Eusebeia 104/18	430-8376	3/12/24	24	Christian - Full KJV Bible Downloads	IBM
Excalibur 104/39	497-6673	3/12/24	5PM-8AM	C Program Files - C Echo Area	IBM
Excelcier	697-1244	3/12	24	Apple/Commodore Message Areas	Apple
Expanded Universe	1-391-0661	3/12/24	24	PC-SIG Library 400 MB Storage	IBM
Experience Software	798-0792	3	24	Franklin Messages	Franklin
Fantasy Mountain PBBS	278-8369	3/12/24	24	Deaf and Handicapped Issues	CP/M
FAWG MASES 128/25	1-633-9277	3/12	24	Fantasy and War Games - Star Trek Online	IBM
Fido NBS 104/607	497-3934	3/12/24	24	National Bureau Standards - Jobs SIG	IBM
FOG-45	1-597-2743	3/12	24	Colorado Springs First Osborne Group 21MB	Osborne
Four Wheeling BBS, The	469-4954	3/12	24	Jeeping / Camping / Outdoors	Atari
GateKeeper, The	755-4210	3/12	24	Gateway High School	Apple
Gay Community 104/19	795-1215	3/12	24	Messages / Downloads for Homosexuals	IBM
Genesis Project	287-8267	3/12/24	24	Apple II General	Apple
GLOBAL Information	286-7914	3/12	24	Fee Subscription / Software Database	VAX
Greater Clifton PCBoard	1-241-1966	3/12	24	Grand Junction MUG - Ham/Packet Radio	IBM
Greeley-Com-Net	1-351-8861	3/12/24	24	Modem Users Board	Apple
Greenline	469-2053	3/12	24	Amiga Messages and Downloads	Amiga
Greeter Hub	1-473-3837	3/12/24	24	Colorado Springs HUB BBS Software Board	IBM
Grotto, The	694-9050	3/12/24	24	Amiga, Pascal	IBM
Hack Shack	688-8406	3/12	24	Commodore	C-64
Hangmans Noose	499-4818	3/12	24	Commodore Games	C-64
HIP Shack 128/19	1-495-2061	3/12/24	24	Amateur Radio - Packet - Short Wave	IBM
Hollows, The	428-0372	3/12	24	Smoke Signal Software/PRIME BBS Support	Apple
HP-BBS 104/34	1-229-9719	3/12	24	Jokes, Amazing but True stories,	HP-Vectra
In To The Night 104/31	659-1897	3/12	9P-3A	General Fido Messages / IBM Game Files	IBM
Interface	1-390-3217	3	24	Subscriber Areas - Online Hardware Order	??
Investment Lounge	759-3721	3/12	24	Excellent Investment/Financial Topics	IBM
Investors BBS Service	1-481-4525	3/12	24	Stocks and Investments	IBM
Isle of Man	447-1942	3/12	24	Gay Community BBS	IBM
King's Market Bookshop	665-6091	3/12	24	Books, Writers, Timex SIG, Zork	TRS ●
Kings Bench 104/615	377-6725	3/12/24	24	Tandy 1000 ONLY/\$2 Registration/Messages	Primary
L&L Support	420-3568	3/12/24	24	GBBS Pro Software Support BBS	Apple
Lakewood Department of Safety	987-7388	3/12	24	Police Sponsored - Law Enforcement Msgs	IBM
Lakewood RCPM/RBBS	985-1108	3/12	24	CP/M MS DOS Downloads	CP/M

DENVER PC BOARDWATCH

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TITLE	TELEPHONE	BPS	HOURS	DESCRIPTION	TYPE
Land of Lindon	987-2094	3/12	24	Fantasy Runequest Games	Apple
LES-COM-NET	233-5824	3/12	24	Lesley College Communications Network	Apple
Libyan Embassy	688-1127	3/12	24	Atari Games	Atari
Lodge, The	420-0305	12	24	Arvada RBBS Board - Needs Uploads	IBM
Magic	791-8732	3/12	24	Macintosh / Apple GS Software & Support	MAC
Manville Information Services	978-3946	3/12	24	Business Software / Apple Macintosh	IBM
MED Link 104/444	443-4353	3/12	24	Medical Info / TI 99/4A / MS-DOS	IBM
Metamorphosis	1-772-7229	3/12/24	24	Rocky Mountain AT&T Users Group 260 MB	IBM
Metro Data Exchange	830-2445	3	24	Commodore 64 - Grateful Dead Schedule	C-64
Micro World Informat	987-2671	3/12	7P-8A	RBBS - IBM - Commodore - Amiga - Atari	IBM
Microlink B 104/108	972-9600	3/12/24	24	Excellent IBM Software Download Library	IBM
Microlink C 104/53	455-4793	3/12	24	Professional Computer Sales Co.	IBM
Mile Hi Tech Fidonet 104/56	973-9338	3/12/24	24	Fido Area Coordinator - Fido News/List	IBM
Mile High Epon User Group BBS	752-2943	3/12/24	24	MHEUG Club Board	EPSON
Mile High Forem	431-1404	3-96	24	Outstanding Atari ST Database - HST 9600	Atari
Mile High Mac Meet	758-9159	3 to 96	24	Denver Macintosh Users Group	MAC
Mile High Net	671-7308	3/12/24	24	Fido Board	IBM
Minds of Mines (MOM) BBS	273-3989	3/12/24	24	CSM Artificial Intelligence/Geotechnical	TI
Modem Net 104/47	680-8153	3/12/24	24	Multiline - INFOMAT - Online Mail Order	IBM
Motherboard	1-241-1419	3/12	24	Grand Junction - Artistic Screens	IBM
Mountain Amiga Enthusiasts	1-564-0618	3/12	24	Pueblo Amiga Computer BBS	Amiga
Mountain Shadows Software	1-598-0111	3/12	24	Computer Solutions-MAC/Apple II - 20 MB	MAC
Musicians Den 104/17	321-6857	3/12	7P-9A	Music Interests - MIDI Technical	IBM
Mycroft	777-8898	3/12	24	Horizon Computer/National Atari BBS List	Atari
Necromancer	1-550-9893	3/12	24	C Springs Tourist Spots - Online Chess	IBM
Networks Unlimited	296-3210	3/12/24	24	Messages/Downloads/Polls	IBM
Nunnery, The	467-1240	3/12	24	Foul Language - C-64 BBS List	C-64
O.P.U.S RBBS of Pueblo	1-544-3704	3/12	24	Pueblo Telecom Users Group -Online games	IBM
Odyssey III	691-0169	3/12	5P-8A	Adult(18) / Sex Oriented - Members Only	Apple
Old Colorado City Elec Cottage	1-632-3391	3/12	24	Rodgers Bar - Politics - NAPLPS Graphics	IBM
On-Line Consulting 104/45	449-5251	3/12/24	6PM-8AM	Consultant Directory/Desktop Publishing	IBM
Optotech Inc 15/16	1-570-7973	12	24	400 Meg Optical Disk Drive Manufacturer	IBM
P*P CompAS	1-591-1453	3/12	24	Pikes Peak Computer Applications Society	IBM
PC Computer Brokers	465-3729	3/12	24	IBM, Epon Equity, TRS-80 Club Msgs	IBM
PCjr Net 104/904	789-4610	3/12/24	24	IBM PC Jr. Technical Information / Files	IBM
PCR HUB	1-635-8808	3/12	24	Online Novel - Not Bad!	IBM
Phasar	745-4305	3/12	24	Teen Conversation - Advice Column	C-128
Phoenix TBBS 104/739	841-9570	3/12/24	24	4 Lines - Online Chat/CB, INFO-MAT Magaz	IBM
Phone Connection	426-7969	3/12	24	Commodore	C-64
Photo Tech	781-1079	3/12/24	24	TRS 80 / HAM / Video / Camera	TRS
Pinecliffe 104/28	444-7073	3/12/24	24	125 Meg - Online Order for CDB Systems	IBM
Playhouse	286-7399	3/12	24	Adult / Jokes / Sexual Themes	Apple
Predacon	988-6886	3/12	24	Atari 8 bit / ST with 10 MB	Atari
Pro-Cyber Perimeters	721-6667	3/12	24	Online Games - Trivia Quiz	Atari
Professional System, The	740-2223	3/12	24	Writers, Lawyers, EDP Auditors	IBM
Prom Blaster	422-3759	3	24	Apple Conversation	Apple
Property Owners Marketing Sys.	973-0100	3/12	24	Subscription Real Estate Service	IBM
PSINet	985-2634	3/12	24	Parapsychology / Near Death Experiences	TRS
Publishing Resources Inc.	442-2011	3/12	24	Laser Printing/Publishing/Linotronic	MAC
Quick BBS Central 104/24	423-3114	12	24	Quick BBS Software Support Board	IBM
R.A.B.B.I.T.	757-9509	3/12	24	Colorado Highway Department - Planning	IBM
Radscan	1-675-3326	3/12	24	Password RADSCAN	PDP-11/45
Radscan	1-675-3225	3/12	24	Rangely PDP11 BBS Multiline - Games	PDP-11/45
Realm, The	937-0215	3	24	Royal Theme - Complete with King	C-64
Reggae Land	690-8144	3	10P-6A	Commodore	C-64
Revelstone	722-5806	3/12	5P-2A	INFO NEEDED	??
Roach Motel	697-1225	3 7E2	24	Commodore	C-128
Rocky Mountain 99ers	288-3692	3/127E2	24	Club Board - Texas Instruments 99/4A	TI99
Rocky Mountain RBBS	750-2107	3/12	??	INFO NEEDED	??
Ron and Shannons AMIS	978-0298	3/12	24	Atari Support 5.4 MB	Atari
Running Board	252-4051	3/12	24	Transportation / Atari	Atari
Shaman Exchange	969-8585	3/12	??	Multi-line System	Apple
Shamus ST	1-591-8673	3/12	24	Citadel Computers - Atari and Amiga	ATARI
Shepherds Bush 104/77	497-6968	3-96	24	IBM Technical - Utilities	IBM
Short Line 104/36	969-9510	3/12	24	Movie, Video, Music Reviews / Ranking	IBM
Skyline Computers	457-0320	3/12	24	Atari Messages	Atari

DENVER PC BOARDWATCH

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TITLE	TELEPHONE	BPS	HOURS	DESCRIPTION	TYPE
Smart-Net 128/23	1-578-9406	3/12/24	24	Dungeons & Dragons Games	IBM
Softech	429-4408	3/12	24	Commodore Bored	C-64
Softronics	1-593-9530	3/12/24	24	Private Software Support	??
Solid Software Fidonet 128/15	1-591-4273	3/12/24	24	Heath Zenith 50 MB - Genealogy	IBM
Space Environment Service Cntr	497-5000	3/12	24	NOAA Solar Flare Forecast/Advisory	??
Space Network	494-8446	3/12/24	24	Space Exploration Information	IBM
Spam Mania	423-0348	3/12	24	Areas Longest Most Idiotic Logon Message	C-64
Springs Net	1-634-6077	3/12	7P-11P	Atari Messages and Downloads	ATARI
Stampede	799-9733	3/12/24	6P-10A	Atari / Amiga Messages / Downloads	Atari
Steamboat Information	1-879-6741	3/12	24	Info on Steamboat Springs Area	IBM
Superguild 64	1-473-5739	3/12	24	Commodore	C-64
TBBS Net 104/23	699-9248	3/12/24	24	The B)read B)oard S)ystem Support	IBM
TBBS#1 of Denver	792-2032	3/12	24	Apparat Computer Store	IBM
Temple of Doom	771-9523	3/12	??	INFO NEEDED	??
Terus Public BBS 104/43	469-7161	3-96	24	MINDS AI TextBase Indexer Support	IBM
The 8th Sea 104/610	252-9235	3/12/24	24	Scuba/Rescue/Wiccan - Great IBM Software	IBM
This End Up 104/30	430-1585	3/12	10P-10A	IBM Downloads - Denver PC Boardwatch	IBM
Timberline Saloon	798-1207	3/12	24	Apple II - Foul Language a Specialty	Apple
Trading Post, The	252-8940	3/12	24	IBM Board with PC Forum BBS Software	IBM
Treasure Island	980-8031	3/12	24	Commodore BBS	C-64
Trekker World	745-9530	3	7A-10P	Star Trek Fanzine	Apple
UCHSC Public Psychiatry 104/51	329-3337	3/12/24	6PM-8AM	Psychiatry - Mental Health - Alcoholism	IBM
University Southern Colorado	1-549-2069	3/12	24	Pueblo Telecommunications Users Group	IBM
USS Liberty	1-224-4655	3/12	24	Vets of crew of USS Liberty	CP/M
Vault, The	796-0539	3/12	24	USAF/ZMAG Member	Atari
Vern's Terminal Exchange	433-1150	3/12	24	Commodore Messages/Downloads/Ads	C-64
Villa TI	1-574-2567	3/12	24	Front Range 99er Computer Club	TI
Vine, The	1-596-1216	3/12	24	Religious	IBM
Waterton Computer Club	977-7096	3/12/24	5P-7A	Martin Marietta Employees - 30M Dnlds	IBM
Werdna's Lair II	331-9276	3/12/24	24	Old and Popular Games BBS	Apple
White Runes of Tinuviel	972-8566	3/12	24	Tolkien Subjects/Dungeons and Dragons	Atari
WILDCAT! Orphanage Internl.	1-392-6631	3/12	24	Talknet Online Newsletter - Caller Stats	IBM
Wingnut Opus 128/24	1-570-9980	3/12/24	24	Theology Echo - Medical	IBM
World Peace PBBS	320-4822	3/12/24	24	Current Events, Politics, RCP/M	Heath
ZAPI	367-4103	3/12	24	Atari/ST/8 Bit	Atari

TOLL-FREE ON-LINE SERVICES

SERVICE	DESCRIPTION	TELEPHONE
GENIE	General Electric's for Fee Service	(800) 638-8369
IN PURSUIT OF	Telenet's PC Pursuit Service Info	(800) 835-3001
NATIONAL E-MAIL REGISTRY	E-Mail Directory/Locator Service	(800) 622-0505
NEC SUPPORT BBS	NEC Computer Technical Advice	(800) 632-7227
SPRINTOUT	Typesetting via Modem Service	(800) 777-8973
SEARCHlink	Database Research Service (Fee)	(800) 843-7337
SYNTAX SYSTEMS BBS	Free Info Line for Syntax Systems	(800) 426-3383
TELENET PHONES	MAIL, PHONES, PHONES	(800) 424-9494

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